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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,521	12/14/1999	REINHARD HEINRICH HOHENSEE	BO9-99-013	3912

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EXAMINER
NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/461,521	HOHENSEE ET AL.
	Examiner	**Art Unit**	
	Chau Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9-12,14 and 15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-7, 9-12, and 14-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Amendment, received on 05/16/2005, has been entered. Claims 1-2, 4-7, 9-12,

and 14-15 are pending. Claims 1, 6, and 11 are independent claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1, 6 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed,

had possession of the claimed invention. In this case, applicant's amendments from

"[[said]] a predetermined level of data processing" decoupled the antecedent basis from

previous limitation "format to a predetermined level of data processing" now canceled.

Therefore, "[[said]] a predetermined level of data processing" is now considered as new

limitation added to claims 1, 6 and 11.

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4. Claims 1-2, 4-7, 9-12, and 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 6 and 11 contain the particular terms or limitations "storing said units, requiring less than a predetermined level of data processing to convert to said device-dependent format, in device-independent format" and "storing said units, requiring more than said predetermined level of data processing to convert to said device-dependent format, in said device-dependent format based on the classified plurality of presentation devices", which render the claims indefinite. The scope of the claimed subject matter cannot be determined since Applicants' specification sheds no light on the meaning of the cited limitations above. For purpose of this rejection, "storing said units, requiring less than a predetermined level of data processing to convert to said device-dependent format, in device-independent format" and "storing said units, requiring more than said predetermined level of data processing to convert to said device-dependent format, in said device-dependent format based on the classified plurality of presentation devices" are interpreted as "storing said units, requiring less data processing to convert to said device-dependent format, in device-independent format" and "storing said units, requiring more data processing to convert to said device-dependent format, in said device-dependent format based on the classified plurality of presentation devices".

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1-2, 4-7, 9-12, and 14-15** are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent Number 6,336,124 B1 to Alam et al., issued January 1,

2002, filed July 7, 1999 in view of U.S. Patent Number 5,813,020 to Hohensee et al.,

issued September 22, 1998, U.S. Patent Number 5,767,833 to Vanderwiele et al.,

issued June 16, 1998, and U.S Patent Number 6,590,674 B1 to Orton, issued July 8,

2003, filed September 23, 1999.

7.   Regarding **independent claims 1, 6, and 11**, Alam et al. teach a data

processing system having a CPU, memory, at least one user output device, and a user

input device. (Alam et al., Fig. 2.)

        Further, Alam et al. teach a method for retrieving and presenting stored

documents on a plurality of output devices each requiring different presentation

parameters. (Alam et al., Abstract.)

Further, Alam et al. teach parsing a document into one or more objects. (Alam et al., col. 6, lines 16-18: "Text/image document 518 is output to a document converter 528 which converts text and/or image document 518 to an intermediate format document 530."; col. 6, lines 59-61: "Each group is stored in the intermediate format document as an intermediate format block.")

Further, Alam et al. inherently teach classifying a plurality of presentation devices inasmuch as they teach that devices can access an index document that will allow them to select an output format suitable for the device (Alam et al., col. 21, lines 54-57); such a selection would not be possible unless devices were classified.

Further, Alam et al. teach receiving a request from a presentation device. (Alam et al., col. 22, lines 34-35.)

Further, Alam et al. teach assembling a document from stored intermediate format blocks, analogous to stored units. (Alam et al., col. 20, lines 25-29.)

Further, Alam et al. teach sending the assembled document to the presentation device. (Alam et al., col. 20, lines 49-51.)

Further, Alam et al. do not teach parsing each object into one or more units. However, Hohensee et al. teach parsing an object into one or more units when the object is a page segment. (Hohensee et al., Fig. 3.) Moreover, one of ordinary skill in the art would have recognized the need to parse an object into one or more units because one of ordinary skill would have known that objects such as pages are frequently comprised one or more units. Therefore, it would have been obvious to one of ordinary skill in the art to parse each object into one or more units.

Further, Alam et al. does not teach for each units, determining whether the unit is

complex based on an amount of data processing required to convert said unit to device-

dependent format; storing said units, requiring less data processing to convert to said

device-dependent format, in device-independent format, and storing said units, requiring

more data processing to convert to said device-dependent format, in said device-

dependent format based on the classified plurality of presentation devices. In the same

field of endeavor, Vanderwiele et al. teach a system determines whether the device is a

24 bpp (bit per pixel element: bpp is considered as a unit) device, or 8 bpp device, or 4

bpp device (24 bpp and 8 bpp are amount of data processing, thus it would have been

obvious to one of ordinary skill in the art at the time the invention was made to interpret

that 24 bpp would be more complex than 8 bpp or 4 bpp) and then the system converts

either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit

(DSB) format respectively before outputting to storage or to the device in the device

dependent bit DSB format (Abstract, col. 2, lines 10-39 and col. 5, line 19 – col. 6, line

30). Vanderwiele et al. also teach a system that "determines whether [an] image is

targeted for multiple hardware formats or a single hardware format and then provides a

conversion from device independent bits to device dependent bits formats in the case of

the multiple hardware format targeting, or performing image conversion appropriate for

the single device in the case of the single device targeting." (Vanderwiele et al.,

Abstract.) In addition, Orton teaches storing document units in a universal, viewer-

independent format so that files may be viewed in a multitude of applications. (Orton,

col. 2, lines 33-46.) Moreover, one of ordinary skill in the art would have recognized the

benefit of storing units in device independent format requiring less process where possible, since one of ordinary skill would have recognized that less processing is desirable. One of ordinary skill in the art would also have recognized the desirability of storing units in device-dependent format requiring more processing when the target device was known to be a particular class of device, since this would deliver data to the device more quickly. Therefore, it would have been obvious to one of ordinary skill in the art to have implemented the steps of storing units, requiring less processing to convert to device-dependent format, in device-independent format or storing units, requiring more processing to convert to device-dependent format, in device-dependent format, and thus it would provide high quality output, rivaling the original image quality across all devices serviced by the data processing system without suffering performance penalties.

8.   Regarding **dependent claims 2, 7, and 12**, Alam et al. teach determining a type of each unit inasmuch as determining a type of intermediate format block, analogous to units, is inherent in Alam et al.'s teaching of keeping track of and storing different kinds of intermediate format blocks, such as text, images, and multimedia files. (Alam et al., col. 6, line 57 – col. 7, line 1.)

9.   Regarding **dependent claims 4, 9, and 14**, Alam et al. teach determining acceptable document formats for the connected presentation devices inasmuch as such a determination would have been inherent in sending an output format "depending upon

the requesting application or output display device" (Alam et al., col. 20, lines 59-60), as well as the execution of JavaScript to select a suitable output format for the device (Alam et al., col. 21, lines 54-57); *i.e.,* before a selection of a suitable output format could be made, it would have been necessary to determine what formats were acceptable.

Further, Alam et al. do not explicitly teach classifying devices according to device-dependent characteristics. However, one of ordinary skill in the art would have known that it was most efficient to classify devices according to device-dependent characteristics because one of ordinary skill would have recognized that classifying devices according to device-dependent characteristics would have resulted in the minimum number of classifications possible, and that devices with different characteristics could be classified together as long as the different characteristics were not device-dependent. Therefore, it would have been obvious to one of ordinary skill in the art to classify devices according to device-dependent characteristics.

10. Regarding **dependent claims 5, 10, and 15**, Alam et al. do not teach determining whether the peripheral device is known or unknown. However, inasmuch as Alam et al. teach sending an output format "depending upon the requesting application or output display device" (Alam et al., col. 20, lines 59-60), one of ordinary skill in the art would have recognized that it would have been necessary to determine whether the peripheral device was known or unknown before selecting an output to be sent to it, because one of ordinary skill would have seen that it would not have been

possible to send device-dependent output to an unknown device. Therefore, it would have been obvious to one of ordinary skill in the art to implement the recited claim limitation.

Response to Arguments

In the remarks, Applicants argued in substance that

A. The step of "Determining" is not shown or suggested.

In reply to argument A, Vanderwiele et al. teach in the Abstract, col. 2, lines 1--39 and col. 5, line 19 – col. 6, line 30 that a system determines whether the device is a 24 bpp (bit per pixel element: bpp is considered as a unit) device, or 8 bpp device, or 4 bpp device (24 bpp and 8 bpp are amount of data processing, thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to interpret that 24 bpp would be more complex than 8 bpp or 4 bpp) and then the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device dependent bit DSB format.

B. The prior art fails to show or suggest the "storing" processes recited by the claims.

In reply to argument B, Vanderwiele et al. teach the system converts either 24 or 8 or 4 device independent bits (DIB) to 24 or 8 or 4 device dependent bit (DSB) format respectively before outputting to storage or to the device in the device dependent bit DSB format (Abstract, col. 5, line 19 – col. 6, line 30). Vanderwiele et al. also teach a system that "determines whether [an] image is targeted for multiple hardware formats or a single hardware format and then provides a conversion from device independent bits to device dependent bits formats in the case of the multiple hardware format targeting, or performing image conversion appropriate for the single device in the case of the single device targeting." (Vanderwiele et al., Abstract)

C. Improper Hindsight has been used to reject the claim.

In reply to argument C, applicants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

11.   Applicant's arguments and amendments, filed on 05/16/2005, have been fully

considered. Applicant's arguments with respect to claims 1, 6 and 11 necessitated by

Applicant's substantial amendment (i.e., determining whether the unit is complex based

on an amount of data processing required to convert said unit to device-dependent

format) to the claims which significantly affected the scope thereof, and they have been

considered but are not persuasive.   Please see the rejection and response to

arguments above.

THIS ACTION IS MADE FINAL.   Applicant is reminded of the extension of time

policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.   In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chau Nguyen whose telephone number is (571) 272-

4092. The examiner can normally be reached on 8:30 am – 5:30 pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Heather Herndon, can be reached on (571) 272-4136.   The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from

703-872-9306 to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

WILLIAM BASHORE
PRIMARY EXAMINER

8/5/2005